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ABSTRACT

This position paper, from a March 1978 institute for library educators on teaching techniques for online searching in professional librarianship programs, recognizes two types of teaching programs currently in existence. One of these is consciousness raising, which stresses a basic understanding and appreciation of concepts and issues, and is characterized by demonstrations and introductory surveys; the other is operator training, which prepares graduates as beginning professional searchers by developing skill mastery through individual practice with specialized supervision and evaluation. Standards for curriculum content, competency based indicators of proficiency, faculty qualifications, teaching resources, and suggestions for the exchange of teaching materials and peer review of educational programs are detailed. (Author/MBR)

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UNIVERSITY OF WASHINGTON
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NEW TECHNIQUES IN THE TEACHING OF ONLINE SEARCHING
An Institute For Library Educators
Seattle, Washington, March 20-24, 1978

Position Paper Number 1:

Proposed Standards For Education In Online Searching In The Professional Librarianship Curriculum

edited by

Edmond Mignon

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

June, 1978

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0. INTRODUCTION

In March 1978 the University of Washington School of Librarianship conducted an institute for library educators on new techniques in the teaching of online searching, funded by a grant from the United States Office of Education under Title II-B of the Higher Education Act of 1965. The Institute was attended by faculty members specializing in the teaching of online searching from twenty library schools representing all parts of the nation. One accomplishment of the Institute was the drafting of this position paper representing the collective judgement of these specialists concerning standards for education in online searching in graduate degree programs in librarianship. These recommendations do not carry any legal or official authority from the U.S. Office of Education, but represent the considered judgement of a substantial proporation of the nation's most experienced people in this pedagogical specialization. Although there was strong support for the philosophy and tone of this document, not all of the individual recommendations represent unanimous agreement of the participants.

1. GENERAL CONSIDERATIONS

This document is concerned with standards for education in online searching in professional Master's degree programs of library schools. However, training in online services is not the exclusive responsibility of academic institutions. A number of other types of organizations such as search services, database suppliers, library cooperatives, and professional associations are actively involved in educational programs (1). The contributions to online education of various types of organizations are complementary and although there is some subject matter common to these programs, the orientation and emphasis of the educational activity of the different types of organizations is somewhat different. It is likely that the responsibilities for training in search systems or databases will continue to be shared by all organizations that have an interest in the effective utilization of these resources, and the library school should not be regarded as the primary institution for providing all forms of training.

The major educational mission of the library school is to prepare beginning information professionals. In this role, the library school is not simply concerned with producing graduates who are competitively qualified for today's job market, but also with teaching the conceptual skills of planning, analysis and decision making that will provide a sound foundation for the life work of information professionals whose career will extend into the next century, and who must be prepared to work confidently and inventively within the millieu of rapid social and technological change that there is reason to believe will be characteristic of our culture in the years ahead(2). Within the present day configuration of educational activities there are two areas where the library school appears to be the preferred organization to provide training. The first of these is to ensure that all practitioners entering the profession have an awareness of the characteristics, value and current limitations of online services. This is referred to in this document as consciousness raising, and is discussed in the next section. The second area is to provide the fundamental training for graduates who plan to begin their career with a specialization in online services. This we refer to as operator training, and objectives for a program that will qualify a graduate as a beginning professional searcher are outlined in Section 3. Although the second of these areas is a more extensive program requiring more resources, it is also somewhat different in its pedagogical approach from the first one. Consciousness raising stresses basic understanding and appreciation of concepts and issues, and is characterized by demonstrations and surveys; whereas education for professional online specialization stresses skill mastery, and is characterized by individual practice and training with specialized supervision and evaluation of student progress. It is the view of the participants that all students should have the former experience, but not all will need or want the latter. Like cataloging or storytelling, online searching is a specialization that will attract some students more than others, depending upon their aptitudes and career goals.

Throughout this document, the word training appears frequently. Although education is the more common term used in connection with studies in graduate

professional schools, the term training is used deliberately in order to emphasize the fact that a significant component of online professionalism is technical skill, acquired by a supervised program of progressive exercises and maintained by continuous lifelong practice.

2. CONSCIOUSNESS RAISING

At the earliest practical point in the degree program, all students should be introduced to online searching as a component of professional practice. Libraries of all sizes and types now provide this service, and the profession is full of this kind of activity. Some recognition of the characteristics of online services is essential for the preparation of all graduates, regardless of whether or not they expect to perform professional searches themselves. This introduction will on one hand alert students to the possibility of more intensive study and training in this specialization in their subsequent course work, and on the other hand will provide the other students with an understanding of its procedures and purposes.

The major concepts to be introduced in a consciousness raising program should be:

- Computerized bibliographic records
- Machine databases
- Elementary Boolean logic
- Searching strategy
- User interviewing, with explicit attention to specialized interviewing procedures that are distinctive to online services.

Some quantitative standards for such a program are specified in Section 5.2. In qualitative terms, the depth of this instruction should be sufficient to ensure that all graduates will have enough understanding of this service to know how to recognize the kinds of user needs that call for an online search, whether or not the graduate her/himself performs the search.

This level of basic understanding will also carry an additional benefit for the database suppliers in conducting training sessions for professional librarians: if all librarians were to have this background, then suppliers would not have to review these basics, and could use the limited time of these training sessions to concentrate on details of their particular products. This would in turn make the training sessions more professionally useful to the attendees.

More generally, an early introduction to the topics of a consciousness raising program provides students with an awareness of some key factors in the design of all bibliographic resources, and enriches the frame of reference for their appeal to this topic in their subsequent studies and courses.

3. PROFESSIONAL SPECIALIZATION - OPERATOR TRAINING

This is the more intensive education that will qualify a graduate for the responsibilities of an entry level position as an online search specialist. Such a graduate should have the following qualifications:

1. A broad understanding of the general principles of literature searching independent of any specific systems, databases or technologies. Some of these principles, relating to search tactics, have been identified by Bates (3).

2. The ability to identify the kinds of information needs for which online procedures are an appropriate form of response.

3. Familiarity with the principal types of databases in current general usage and acquaintance with the names and noteworthy features of some representative specimens of each type.

4. The ability to identify the repertory of available databases for any subject field, and to understand the principles of choosing from rival databases for a given information request in that subject field.

5. The ability to examine the documentation of an unfamiliar database in order to establish its scope, character, indexing practices, editorial policy and special features; then to be able to use the evidence of such an examination to conduct a well organized introductory online reconnaissance of that database.

6. Sufficient proficiency with the basic procedures of reference interviewing, search strategy organization and search output analysis to have confidence in one's ability to make effective and appropriate use of online searching as a basic resource of professional librarianship.

7. At least an introductory familiarity with the methods for acquiring, staffing, promoting, budgeting and monitoring a library online search service.

Some competency-based indicators of proficiency which might be used by a library school in assessing a student's readiness for professional work might be:

A. Operational skills in at least one system sufficient to be able to independently prepare and present a demonstration of at least one database in that system.

B. The ability to execute a statisfactory search for one end user (In this context, the term search includes user interviewing, pre-search strategy formulation and post search analysis of output as well as online skills.)

4. STANDARDS FOR FACULTY

Online searching can be taught either by full-time academic faculty or by adjunct faculty. There are advantages to each of these approaches and the

wisest choice will depend upon the circumstances of each school. However, the following qualifications are desirable for any faculty member teaching this specialization:

1. Up-to-date experience in online searching with a level of proficiency not less than equivalent to the vendors' advanced user training session for each system the instructor teaches.

2. Knowledge of principles of information retrieval, particularly in methods of vocabulary control and current practices in abstracting and indexing.

3. Training or experience in the teaching of communication skills.

The third of these requirements is included in order to draw attention to the fact that user interviewing is a crucial component of a search service and that efficient, accurate and appropriate procedures for conducting such interviews are not entirely intuitive and temperamental matters, but involve teachable skills which can be practiced and mastered if presented by an instructor with a background in this specialty (4, 5).

5. STANDARDS FOR INSTRUCTIONAL RESOURCES

5.1 General:

At least one hard copy terminal for the exclusive use of the library school. The practice of sharing or negotiating for part-time use of terminals at other campus locations (e.g., University library, computer center) for the profesional degree program is now a substandard level of support.

Adequate specialized documentation for the support of the training program. Suggested minimum: one copy of the search service user manual per terminal for each system being taught in the program, plus a representative selection of current database producer manuals and search aids.

Access to audio-visual and data transmitting equipment as required for the instructional presentation of online skills. The access should be sufficiently convenient to make it attractive and efficient for instructors to make regular use of this technology in classroom sessions. The technological configuration will depend on the size and setting of the training program, but some resources in current use are data cassettes, character generators, videotapes, and TV monitors. (A survey of some of these set-ups is included in a recent paper by Tedd and Keen (6).)

5.2 Resources for Consciousness Raising:

A minimum of one hour of the class time devoted to the consciousness raising program should be allocated for demonstrations and displays. It is also highly desirable that all students should have one hour of hands-on time. Experience of the participants indicates that less than this amount of time does not provide sufficient exposure for the introductory familiarization to provide a satisfactory reinforcement for the demonstrations and lectures. An estimate of $20.00 per student, based on 1978 technology and connect time with instructional passwords, is recommended as a planning figure.

5.3 Resources for the Training of Online Search Specialists:

(These standards assume the situation found in many library schools, where there is a specific course, substantially devoted to the training of professional searchers.)

The essential requirement is that each student in the operator training program have sufficient access to resources to enable her/him to achieve competency in the skills required for meeting the seven objectives for a beginning professional specialist, as specified above in Section 3. The resources required for this access will depend somewhat on the size and setting of the particular library school, but the following standards are suggested as minimal requirements for the support of a sound program:

1. At least five hours of hands-on practice per student. This is based on figures reports by Bourne and Anderson (7).

2. A budget estimate of at least $100 per student, based on 1978 technology and connect time rates with instructional passwords. This figure includes connect time charges, cost of manuals, documentation and printed search aids, and pay for search lab assistants. It does not include costs for the purchase of equipment, installation of telephone lines and related technology, or instructor education and preparation.

3. Adequate lab assistance for the supervision of student practice, whether in the form of trained student assistants or support staff. The actual number of person-hours required for supervising students, preparing and testing instructional materials, and related support services will vary from one institution to another, but provision for such support staff should be planned as a regular component of any sound program of operator training.

5.4 Resources For Integrated Programs:

In the case of the library school where the curriculum is organized so that the consciousness raising program is not necessarily followed by a separate course in operator training, but instead prefers to integrate online database instruction among various literature courses, such as Introduction to Government Documents, or Bibliography of the Social Sciences, a minimum of three hours of connect time per student per course is recommended for minimal proficiency in the subject oriented databases.

6. PEER REVIEW

Online searching is a specialization characterized by rapid change in services, technologies and applications. In order to ensure that the instructional program stays abreast of these changes, and that graduates are adequately prepared for their responsibilities at the state-of-the-art level, the library school should request an external peer review of its program in online searching at

regular intervals. Based on figures reported by Cuadra (8) such a review might typically take place about every four years, but this interval could be either shorter or longer depending upon the needs of the individual program.

The peer review would not be for the purpose of accreditation, but instead would provide a refereeing service to help the school to verify that its program was keeping up with developments in the profession. It is essential that such a review be voluntary and initiated by the school itself as the need arises, and should not be attached to any external efforts to impose mandatory regulations on academic programs.

A less elaborate, but no less desirable form of peer communication, would be a nationwide online user group composed of educators, and specifically devoted to matters of teaching and training. The cost of attending this group's meetings would be substantially reduced by holding the group's meetings in connection with the annual meetings of an appropriate professional society, such as the American Society for Information Science or the American Association of Library Schools. These meetings would provide a regular, continuous opportunity for faculty members to assess their programs in light of the activities of thier counterparts at comparable institutions.

7. SHARING OF MATERIALS

The preparation of exercises and instructional materials is expensive and time-consuming, and the design of sound exercises requires a high order of specialization, both in pedagogical skills and in knowledge of databases and search systems. Educators should be encouraged to share effective teaching materials, and to actively cooperate with one another in the development of exercises and programs as instructional needs are identified.

In particular, educators are encouraged to take advantage of the services of the ERIC Clearinghouse on Information Resources, which can serve as a clearing-

house for the exchange of workbooks, syllabi and related materials. The ONTAP Workbook (9) is being supplied in this manner, and more efforts to use the ERIC services this way will enrich the repertory of avialable teaching materials at minimal cost to students and library schools,as well as reduce the duplication of effort by instructors in different institutions.

REFERENCES

1. Bourne, Charles and Jo Robinson. Education and Training For Computer-based Reference Services. I. Review of Training Efforts To Date. To be published in 1978.

2. Wilson, Pauline. "Librarianship and ALA in a Post-Industrial Society". American Libraries, V. 9, No. 3 (March 1978), pages 124-128.

3. Bates, Marcia J. Information Search Tactics, 1978 (Manuscript being prepared for publication).

4. Briggs, Bruce. "The User Interface for Bibliographic Search Services"; in F.W. Lancaster, The Use of Computers In Literature Searching And Related Reference Activities in Libraries. (Papers presented at the 1975 Clinic on Library Applications of Data Processing), Urbana, University of Illinois, 1976, pages 56-77.

5. Atherton, Pauline and Roger Christian. Librarians and Online Services. White Plains, NY: Knowledge Industry Publications, 1977, pages 50-53.

6. Tedd, Lucy A. and E. Michael Keen. "Methods of Teaching Online Bibliographic Searching: Experience at the College of Librarianship Wales". To be published in Information Management and Processing, 1978.

7. Bourne, Charles and Barbara Anderson. Observations on the Use of the Lockheed Dialog System For Laboratory Work....at the UCB School of Librarianship. Berkeley, CA, Institute of Library Research, University of CAlifornia, January 1976.

8. Cuadra, Carlos. Impact of Online Services. Paper presented at a meeting of the California Information Network, San Jose, CA, February 1977.

9. Markey, Karen and Pauline Atherton. ONTAP: Online Training and Practice Manual for ERIC Data Base Searches. Syracuse, N.Y.: ERIC Clearinghouse on Information Resources, June 1978.

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